```
=> File .Biotech
=> s (sulfite# or sulphite#)
        141102 (SULFITE# OR SULPHITE#)
=> s l1 and (sodium sulfite or sodium sulphite or Na2SO3 or sulfur dioxide or
sulphur dioxide or SO2)
         51851 L1 AND (SODIUM SULFITE OR SODIUM SULPHITE OR NA2SO3 OR SULFUR
L2
               DIOXIDE OR SULPHUR DIOXIDE OR SO2)
=> s 12 and (protein(1) soy or whey)
           421 L2 AND (PROTEIN(L) SOY OR WHEY)
L3
=> s 13 and (prepar? or modif? or mak? or isolat? or formulat? or produc?)
   6 FILES SEARCHED...
           408 L3 AND (PREPAR? OR MODIF? OR MAK? OR ISOLAT? OR FORMULAT? OR
               PRODUC?)
=> s 14 and (ppt# or precip? or aggregat? or concentrat? or centrifug?)
           368 L4 AND (PPT# OR PRECIP? OR AGGREGAT? OR CONCENTRAT? OR CENTRIFU
L5
               G?)
=> s 15 and (sulfonat?(w)protein or protein(1)sulfon?)
   6 FILES SEARCHED...
           142 L5 AND (SULFONAT? (W) PROTEIN OR PROTEIN (L) SULFON?)
L<sub>6</sub>
=> s 16 and (acid?(w)pH)
            21 L6 AND (ACID? (W) PH)
=> s 16 and (enzymat?(w)hydrolysis)
            12 L6 AND (ENZYMAT? (W) HYDROLYSIS)
=> s 17 and 18
             4 L7 AND L8
L9
=> d 19 1-4 bib ab
1.9
     ANSWER 1 OF 4 USPATFULL on STN
       2003:319282 USPATFULL
AN
TI
       Administration of acetylcholinesterase inhibitors to the cerebral spinal
       fluid
IN
       Quay, Steven C., Edmonds, WA, UNITED STATES
PΙ
       US 2003225031
                          A1
                                20031204
AΙ
       US 2003-439108
                          Α1
                                20030515 (10)
PRAI
       US 2002-382122P
                           20020521 (60)
DT
       Utility
FS
       APPLICATION
LREP
       Nastech Pharmaceutical Company Inc., 3450 Monte Villa Parkway, Bothell,
       WA, 98021-8906
       Number of Claims: 62
CLMN
       Exemplary Claim: 1
ECL
       1 Drawing Page(s)
DRWN
LN.CNT 2144
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods and compositions are disclosed that provide acetylcholinesterase
AΒ
       inhibitors for the prevention and treatment of diseases and disorders of
       the central nervous system, including dementia such as Alzheimer's
       disease, to the central nervous system via intranasal delivery. The
       methods and compositions of the present invention provide therapeutic
       concentrations of the acetylcholinesterase inhibitor in the
       cerebrospinal fluid of a mammal without the attendant disadvantages,
       risks and side effects of oral or injection delivery.
L9
     ANSWER 2 OF 4 USPATFULL on STN
       2003:120747 USPATFULL
AN
       Blood cell deficiency treatment method
ΤI
```

```
Ahlem, Clarence N., San Diego, CA, UNITED STATES
TN
       Reading, Christopher, San Diego, CA, UNITED STATES
       Frincke, James, San Diego, CA, UNITED STATES
       Stickney, Dwight, Granite Bay, CA, UNITED STATES
       Lardy, Henry A., Madison, WI, UNITED STATES
       Marwah, Padma, Middleton, WI, UNITED STATES
       Marwah, Ashok, Middleton, WI, UNITED STATES
       Prendergast, Patrick T., Straffan, IRELAND
                               20030501
PΙ
       US 2003083231
                          A1
                          Α1
                               20020301 (10)
ΑI
       US 2002-87929
RLI
       Continuation-in-part of Ser. No. US 2000-675470, filed on 28 Sep 2000,
       PENDING Continuation-in-part of Ser. No. US 2001-820483, filed on 29 Mar
       2001, PENDING Continuation-in-part of Ser. No. US 2000-535675, filed on
       23 Mar 2000, PENDING Continuation-in-part of Ser. No. US 1999-449004,
       filed on 24 Nov 1999, ABANDONED Continuation-in-part of Ser. No. US
       1999-449184, filed on 24 Nov 1999, ABANDONED Continuation-in-part of
       Ser. No. US 1999-449042, filed on 24 Nov 1999, ABANDONED
       Continuation-in-part of Ser. No. US 1999-461026, filed on 15 Dec 1999,
       ABANDONED Continuation-in-part of Ser. No. US 2000-586673, filed on 1
       Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 2000-586672,
       filed on 1 Jun 2000, ABANDONED Continuation-in-part of Ser. No. US
       1999-414905, filed on 8 Oct 1999, ABANDONED
PRAI
       US 1999-161453P
                           19991025 (60)
       US 2001-272624P
                            20010301 (60)
       US 2001-323016P
                            20010911 (60)
       US 2001-340045P
                            20011130 (60)
       US 2001-328738P
                            20011011 (60)
       US 2001-338015P
                            20011108 (60)
       US 2001-343523P
                            20011220 (60)
       US 1999-126056P
                           19991019 (60)
       US 1999-124087P
                            19990311 (60)
       US 1998-109923P
                            19981124 (60)
       US 1998-109924P
                            19981124 (60)
                            19981127 (60)
       US 1998-110127P
       US 1998-112206P
                            19981215 (60)
       US 1999-145823P
                            19990727 (60)
       US 1999-137745P
                            19990603 (60)
       US 1999-140028P
                            19990616 (60)
DT
       Utility
FS
       APPLICATION
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
LREP
       DIEGO, CA, 92121
CLMN
       Number of Claims: 45
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 19428
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       The invention relates to the use of compounds to treat a number of
       conditions, such as thrombocytopenia, neutropenia or the delayed effects
       of radiation therapy. Compounds that can be used in the invention
       include methyl-2,3,4-trihydroxy-1-0-(7,17-dioxoandrost-5-ene-3\beta-yl)-
       \beta-D-glucopyranosiduronate, 16\alpha, 3\alpha-dihydroxy-5\alpha-
       androstan-17-one or 3,7,16,17-tetrahydroxyandrost-5-ene,
       3,7,16,17-tetrahydroxyandrost-4-ene,3,7,16,17-tetrahydroxyandrost-1-ene
       or 3,7,16,17-tetrahydroxyandrostane that can be used in the treatment
       method.
     ANSWER 3 OF 4 USPATFULL on STN
1.9
AN
       2003:86817 USPATFULL
ΤI
       Immune modulation method using steroid compounds
IN
       Ahlem, Clarence N., San Diego, CA, UNITED STATES
       Frincke, James M., San Diego, CA, UNITED STATES
       dos Anjos de Carvalho, Luis Daniel, Paio Pires, PORTUGAL
       Heggie, William, Palmela, PORTUGAL
```

Prendergast, Patrick T., County Kildare, IRELAND

```
Thadikonda, Krupakar Paul, Gaithersburg, MD, UNITED STATES
       Vernon, Russell N., Oak Hills, CA, UNITED STATES
                          A1
                               20030327
       US 2003060425
PΙ
                          A1
                               20010329 (9)
       US 2001-820483
AΙ
       Continuation-in-part of Ser. No. US 1999-449184, filed on 24 Nov 1999,
RLI
       ABANDONED Continuation-in-part of Ser. No. US 1999-414905, filed on 8
       Oct 1999, ABANDONED Continuation-in-part of Ser. No. US 1999-449004,
       filed on 24 Nov 1999, ABANDONED Continuation-in-part of Ser. No. US
       2000-535675, filed on 23 Mar 2000, PENDING Continuation-in-part of Ser.
       No. US 1999-449042, filed on 24 Nov 1999, ABANDONED Continuation-in-part
       of Ser. No. US 2000-675470, filed on 28 Sep 2000, PENDING
       Continuation-in-part of Ser. No. US 2000-586673, filed on 1 Jun 2000,
       ABANDONED Continuation-in-part of Ser. No. US 2000-586672, filed on 1
       Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 1999-461026,
       filed on 15 Dec 1999, ABANDONED
PRAI
       US 1998-109924P
                           19981124 (60)
       US 1999-140028P
                           19990616 (60)
       US 1998-109923P
                           19981124 (60)
       US 1999-126056P
                           19991019 (60)
       US 1999-124087P
                           19990311 (60)
       US 1998-110127P
                           19981127 (60)
       US 1999-161453P
                           19991025 (60)
       US 1999-145823P
                           19990727 (60)
                           19990603 (60)
       US 1999-137745P
                           19981215 (60)
       US 1998-112206P
       US 2000-257071P
                           20001220 (60)
DT
       Utility
       APPLICATION
FS
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
LREP
       DIEGO, CA, 92121
CLMN
       Number of Claims: 54
       Exemplary Claim: 1
ECL
       6 Drawing Page(s)
DRWN
LN.CNT 14708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The invention provides compositions comprising formula 1 steroids, e.g.,
       16\alpha-bromo-3 \beta-hydroxy-5\alpha-androstan-17-one hemihydrate
       and one or more excipients, including compositions that comprise a
       liquid formulation comprising less than about 3% v/v water.
       The compositions are useful to make improved pharmaceutical
       formulations. The invention also provides methods of
       intermittent dosing of steroid compounds such as analogs of
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen replication,
       ameliorate symptoms associated with immune dysregulation and to modulate
       immune responses in a subject using the compounds. The invention also
       provides methods to make and use these immunomodulatory
       compositions and formulations.
     ANSWER 4 OF 4 USPATFULL on STN
L9
       2001:59446 USPATFULL
AN
TI
       Short-chained peptide material
       Cho, Myong J., Chesterfield, MO, United States
TN
       Singer, David A., St. Louis, MO, United States
       Lin, Santa H., late of St. Louis, MO, United States deceased, Terry T.
       Lin, executor
       Protein Technologies Int'l Inc., St. Louis, MO, United States (U.S.
PA
       corporation)
ΡI
       US 6221423
                          В1
                                20010424
AΙ
       US 1998-59655
                                19980413 (9)
DT
       Utility
FS
       Granted
       Primary Examiner: Weier, Anthony J.
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Reading, Christopher L., San Diego, CA, UNITED STATES

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LREP
       Taylor, Richard B.
       Number of Claims: 20
CLMN
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 849
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A short chain peptide material is provided containing a peptide material
       derived from a protein material. At least a majority of the peptides in
       the peptide material have a peptide chain length of 7 peptides or less.
       The peptide material is at least 95% soluble in an aqueous solution
       having a pH at which the protein material from which the peptide
       material is derived is insoluble. A process for forming the short chain
       peptide material is also provided. A slurry is formed of a protein
       material at a pH at which the protein material is substantially
       insoluble. The protein material is contacted with an enzyme having
       substantial endopeptidase activity and substantial exopeptidase activity
       at a temperature and for a time sufficient to form the peptide material
       of the invention.
=> d his
     (FILE 'HOME' ENTERED AT 11:49:47 ON 26 MAY 2004)
     FILE 'MEDLINE, CAPLUS, BIOSIS, BIOTECHDS, EMBASE, USPATFULL, WPIDS'
     ENTERED AT 11:50:33 ON 26 MAY 2004
L1
         141102 S (SULFITE# OR SULPHITE#)
          51851 S L1 AND (SODIUM SULFITE OR SODIUM SULPHITE OR NA2SO3 OR SULFUR
L2
L3
            421 S L2 AND (PROTEIN(L)SOY OR WHEY)
L4
            408 S L3 AND (PREPAR? OR MODIF? OR MAK? OR ISOLAT? OR FORMULAT? OR
            368 S L4 AND (PPT# OR PRECIP? OR AGGREGAT? OR CONCENTRAT? OR CENTR
L5
L6
            142 S L5 AND (SULFONAT? (W) PROTEIN OR PROTEIN (L) SULFON?)
L7
             21 S L6 AND (ACID? (W) PH)
             12 S L6 AND (ENZYMAT? (W) HYDROLYSIS)
L8
1.9
              4 S L7 AND L8
=> s 18 and (pepsin or trypsin)
             7 L8 AND (PEPSIN OR TRYPSIN)
L10
=> d l10 1-7 bib ab
L10 ANSWER 1 OF 7 USPATFULL on STN
       2004:127423 USPATFULL
ΑN
       Pharmaceutical compositions and treatment methods - 4
ΤI
       Ahlem, Clarence Nathaniel, San Diego, CA, UNITED STATES
IN
       Frincke, James Martin, San Diego, CA, UNITED STATES
       dos Anjos de Carvalho, Luis Daniel, Paio Pires, PORTUGAL
       Heggie, William, Palmela, PORTUGAL
       Prendergast, Patrick T., County Kildare, IRELAND
       Reading, Christopher L., San Diego, CA, UNITED STATES
       Thadikonda, Krupakar Paul, Gaithersburg, MD, UNITED STATES
       Vernon, Russell Neil, Oak Hills, CA, UNITED STATES
PΙ
       US 2004097406
                          Α1
                               20040520
       US 2003-607035
ΑI
                               20030625 (10)
                          Α1
       Division of Ser. No. US 2000-535675, filed on 23 Mar 2000, GRANTED, Pat.
RLI
       No. US 6667299 Continuation-in-part of Ser. No. US 1999-414905, filed on
       8 Oct 1999, ABANDONED
PRAI
       US 2000-190140P
                           20000316 (60)
                           19991108 (60)
       US 1999-164048P
       US 1999-140028P
                           19990616 (60)
       US 1999-126056P
                           19991019 (60)
DT
       Utility
FS
       APPLICATION
LREP
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
       DIEGO, CA, 92121
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Exemplary Claim: 1
ECL
       6 Drawing Page(s)
DRWN
LN.CNT 9339
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides compositions comprising formula 1 steroids, e.g.,
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one hemihydrate
       and one or more excipients, typically wherein the composition comprises
       less than about 3% water. The compositions are useful to make
       improved pharmaceutical formulations. The invention also
       provides methods of intermittent dosing of steroid compounds such as
       analogs of 16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen (viral)
       replication, ameliorate symptoms associated with immune dysregulation
       and to modulate immune responses in a subject using certain steroids and
       steroid analogs. The invention also provides methods to make
       and use these immunomodulatory compositions and formulations.
L10 ANSWER 2 OF 7 USPATFULL on STN
       2004:57966 USPATFULL
AN
       Pharmaceutical compositions and treatment methods
ΤI
IN
       Ahlem, Clarence N., San Diego, CA, UNITED STATES
       Heggie, William, Cabanas, PORTUGAL
       Carvalho, Luis D., Paio Pires, PORTUGAL
_{\rm PI}
       US 2004043973
                          A1
                                20040304
       US 2002-319356
                                20021213 (10)
AΙ
                          Α1
       Continuation of Ser. No. US 2000-535675, filed on 23 Mar 2000, PENDING
RLI
PRAI
       US 2000-190140P
                           20000316 (60)
DT
       Utility
FS
       APPLICATION
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
LREP
       DIEGO, CA, 92121
       Number of Claims: 53
CLMN
ECL
       Exemplary Claim: 1
DRWN
       6 Drawing Page(s)
LN.CNT 9007
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides compositions comprising formula 1 steroids, e.g.,
AB
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one hemihydrate
       and one or more excipients, typically wherein the composition comprises
       less than about 3% water. The compositions are useful to make
       improved pharmaceutical formulations. The invention also
       provides methods of intermittent dosing of steroid compounds such as
       analogs of 16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen (viral)
       replication, ameliorate symptoms associated with immune dysregulation
       and to modulate immune responses in a subject using certain steroids and
       steroid analogs. The invention also provides methods to make
       and use these immunomodulatory compositions and formulations.
L10 ANSWER 3 OF 7 USPATFULL on STN
AN
       2003:332378 USPATFULL
ΤI
       Pharmaceutical compositions and treatment methods
IN
       Ahlem, Clarence Nathaniel, San Diego, CA, United States
       de Carvalho, Luis Daniel dos Anjos, Paio Pires, PORTUGAL
       Heggie, William, Palmela, PORTUGAL
PA
       Hollis-Eden Pharmaceuticals, Inc., San Diego, CA, United States (U.S.
       corporation)
PΙ
       US 6667299
                                20031223
ΑI
       US 2000-535675
                                20000323 (9)
       US 2000-190140P
                          20000316 (60)
PRAI
DT
       Utility
FS
       GRANTED
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Number of Claims: 21

CLMN

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Primary Examiner: Badio, Barbara P.
EXNAM
       Muenchau, Daryl D.
LREP
       Number of Claims: 39
CLMN
       Exemplary Claim: 1
ECL
DRWN
       6 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 8994
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides compositions comprising, 16\alpha-bromo-3\beta-
       hydroxy-5\alpha-androstan-17-one hemihydrate and one or more
       excipients, typically wherein the composition comprises less than about
       3% water. The compositions are useful to make improved
       pharmaceutical formulations. The invention also provides
       methods of intermittent dosing of steroid compounds such as analogs of
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen (viral)
       replication, ameliorate symptoms associated with immune dysregulation
       and to modulate immune responses in a subject using certain steroids and
       steroid analogs. The invention also provides methods to make
       and use these immunomodulatory compositions and formulations.
L10 ANSWER 4 OF 7 USPATFULL on STN
       2003:319282 USPATFULL
AN
TT
       Administration of acetylcholinesterase inhibitors to the cerebral spinal
       Quay, Steven C., Edmonds, WA, UNITED STATES
IN
PΙ
       US 2003225031
                          A1
                               20031204
       US 2003-439108
ΑI
                               20030515 (10)
                          Α1
       US 2002-382122P
                           20020521 (60)
PRAI
DT
       Utility
FS
       APPLICATION
       Nastech Pharmaceutical Company Inc., 3450 Monte Villa Parkway, Bothell,
LREP
       WA, 98021-8906
CLMN
       Number of Claims: 62
       Exemplary Claim: 1
ECL
DRWN
       1 Drawing Page(s)
LN.CNT 2144
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods and compositions are disclosed that provide acetylcholinesterase
AB
       inhibitors for the prevention and treatment of diseases and disorders of
       the central nervous system, including dementia such as Alzheimer's
       disease, to the central nervous system via intranasal delivery. The
       methods and compositions of the present invention provide therapeutic
       concentrations of the acetylcholinesterase inhibitor in the
       cerebrospinal fluid of a mammal without the attendant disadvantages,
       risks and side effects of oral or injection delivery.
L10 ANSWER 5 OF 7 USPATFULL on STN
ΑN
       2003:120747 USPATFULL
ΤI
       Blood cell deficiency treatment method
IN
       Ahlem, Clarence N., San Diego, CA, UNITED STATES
       Reading, Christopher, San Diego, CA, UNITED STATES
       Frincke, James, San Diego, CA, UNITED STATES
       Stickney, Dwight, Granite Bay, CA, UNITED STATES
       Lardy, Henry A., Madison, WI, UNITED STATES
       Marwah, Padma, Middleton, WI, UNITED STATES
       Marwah, Ashok, Middleton, WI, UNITED STATES
       Prendergast, Patrick T., Straffan, IRELAND
PΙ
       US 2003083231
                          A1
                               20030501
ΑI
       US 2002-87929
                          A1
                               20020301 (10)
       Continuation-in-part of Ser. No. US 2000-675470, filed on 28 Sep 2000.
RLI
       PENDING Continuation-in-part of Ser. No. US 2001-820483, filed on 29 Mar
       2001, PENDING Continuation-in-part of Ser. No. US 2000-535675, filed on
       23 Mar 2000, PENDING Continuation-in-part of Ser. No. US 1999-449004,
```

filed on 24 Nov 1999, ABANDONED Continuation-in-part of Ser. No. US

```
Ser. No. US 1999-449042, filed on 24 Nov 1999, ABANDONED
       Continuation-in-part of Ser. No. US 1999-461026, filed on 15 Dec 1999,
       ABANDONED Continuation-in-part of Ser. No. US 2000-586673, filed on 1
       Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 2000-586672,
       filed on 1 Jun 2000, ABANDONED Continuation-in-part of Ser. No. US
       1999-414905, filed on 8 Oct 1999, ABANDONED
PRAI
                           19991025 (60)
       US 1999-161453P
       US 2001-272624P
                           20010301 (60)
       US 2001-323016P
                           20010911 (60)
                           20011130 (60)
       US 2001-340045P
       US 2001-328738P
                           20011011 (60)
       US 2001-338015P
                           20011108 (60)
       US 2001-343523P
                           20011220 (60)
       US 1999-126056P
                           19991019 (60)
       US 1999-124087P
                           19990311 (60)
       US 1998-109923P
                           19981124 (60)
       US 1998-109924P
                           19981124 (60)
       US 1998-110127P
                           19981127 (60)
       US 1998-112206P
                           19981215 (60)
       US 1999-145823P
                           19990727 (60)
       US 1999-137745P
                           19990603 (60)
       US 1999-140028P
                           19990616 (60)
DT
       Utility
FS
       APPLICATION
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
LREP
       DIEGO, CA, 92121
CLMN
       Number of Claims: 45
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 19428
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention relates to the use of compounds to treat a number of
       conditions, such as thrombocytopenia, neutropenia or the delayed effects
       of radiation therapy. Compounds that can be used in the invention
       include methyl-2,3,4-trihydroxy-1-O-(7,17-dioxoandrost-5-ene-3β-yl)-
       \beta-D-glucopyranosiduronate, 16\alpha, 3\alpha-dihydroxy-5\alpha-
       androstan-17-one or 3,7,16,17-tetrahydroxyandrost-5-ene,
       3,7,16,17-tetrahydroxyandrost-4-ene,3,7,16,17-tetrahydroxyandrost-1-ene
       or 3,7,16,17-tetrahydroxyandrostane that can be used in the treatment
       method.
L10 ANSWER 6 OF 7 USPATFULL on STN
       2003:99213 USPATFULL
ΑN
       High capacity methods for separation, purification,
ΤI
       concentration, immobilization and synthesis of compounds and
       applications based thereupon
       Lee, William, Cambridge, MA, UNITED STATES
TN
       Saito, Kyoichi, Tokyo, JAPAN
PI
       US 2003068317
                          Α1
                                20030410
       US 2002-126297
AΙ
                          Α1
                                20020419 (10)
       US 2001-285146P
                           20010420 (60)
PRAI
                            20011210 (60)
       US 2001-339951P
       US 2001-339949P
                            20011210 (60)
       US 2002-347547P
                            20020111 (60)
DT
       Utility
FS
       APPLICATION
       MINTZ, LEVIN, COHN, FERRIS,, GLOVSKY AND POPEO, P.C., One Financial
LREP
       Center, Boston, MA, 02111
       Number of Claims: 35
CLMN
       Exemplary Claim: 1
ECL
DRWN
       34 Drawing Page(s)
LN.CNT 2906
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       Compositions are provided herein comprising a base material having
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1999-449184, filed on 24 Nov 1999, ABANDONED Continuation-in-part of

engrafted polymer brushes. The polymer brushes further comprise one or more functional groups immobilized along the surface of the brushes in a plurality of layers, which confer functional properties to the base material compositions. Methods of using these compositions include deoxygenation of a sample solution, hydrolysis of denaturing agents in a sample solution, resolution of racemic mixtures in a sample solution, and purification, and concentration of target compounds.

```
L10 ANSWER 7 OF 7 USPATFULL on STN
       2003:86817 USPATFULL
AN
TI
       Immune modulation method using steroid compounds
       Ahlem, Clarence N., San Diego, CA, UNITED STATES
TN
       Frincke, James M., San Diego, CA, UNITED STATES
       dos Anjos de Carvalho, Luis Daniel, Paio Pires, PORTUGAL
       Heggie, William, Palmela, PORTUGAL
       Prendergast, Patrick T., County Kildare, IRELAND
       Reading, Christopher L., San Diego, CA, UNITED STATES
       Thadikonda, Krupakar Paul, Gaithersburg, MD, UNITED STATES
       Vernon, Russell N., Oak Hills, CA, UNITED STATES
ΡI
       US 2003060425
                          A1
                                20030327
AΙ
       US 2001-820483
                          Α1
                                20010329 (9)
       Continuation-in-part of Ser. No. US 1999-449184, filed on 24 Nov 1999,
RLI
       ABANDONED Continuation-in-part of Ser. No. US 1999-414905, filed on 8
       Oct 1999, ABANDONED Continuation-in-part of Ser. No. US 1999-449004,
       filed on 24 Nov 1999, ABANDONED Continuation-in-part of Ser. No. US
       2000-535675, filed on 23 Mar 2000, PENDING Continuation-in-part of Ser.
       No. US 1999-449042, filed on 24 Nov 1999, ABANDONED Continuation-in-part
       of Ser. No. US 2000-675470, filed on 28 Sep 2000, PENDING
       Continuation-in-part of Ser. No. US 2000-586673, filed on 1 Jun 2000,
       ABANDONED Continuation-in-part of Ser. No. US 2000-586672, filed on 1
       Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 1999-461026,
       filed on 15 Dec 1999, ABANDONED
PRAI
       US 1998-109924P
                           19981124 (60)
       US 1999-140028P
                           19990616 (60)
       US 1998-109923P
                           19981124 (60)
       US 1999-126056P
                           19991019 (60)
       US 1999-124087P
                           19990311 (60)
       US 1998-110127P
                           19981127 (60)
       US 1999-161453P
                           19991025 (60)
       US 1999-145823P
                           19990727 (60)
       US 1999-137745P
                           19990603 (60)
       US 1998-112206P
                           19981215 (60)
       US 2000-257071P
                           20001220 (60)
DT
       Utility
FS
       APPLICATION
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
LREP
       DIEGO, CA, 92121
       Number of Claims: 54
CLMN
ECL
       Exemplary Claim: 1
DRWN
       6 Drawing Page(s)
LN.CNT 14708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       The invention provides compositions comprising formula 1 steroids, e.g.,
       16\alpha-bromo-3 \beta-hydroxy-5\alpha-androstan-17-one hemihydrate
       and one or more excipients, including compositions that comprise a
       liquid formulation comprising less than about 3% v/v water.
       The compositions are useful to make improved pharmaceutical
       formulations. The invention also provides methods of
       intermittent dosing of steroid compounds such as analogs of
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen replication,
       ameliorate symptoms associated with immune dysregulation and to modulate
       immune responses in a subject using the compounds. The invention also
       provides methods to make and use these immunomodulatory
```

=> s 17 or 18 or 111 and (112)

L14

29 L7 OR L8 OR L11 AND (L12)

```
=> s 16 and (without(1)oxidizing agent or no oxidiz?(w)agent#)
            28 L6 AND (WITHOUT(L) OXIDIZING AGENT OR NO OXIDIZ?(W) AGENT#)
=> s Savolainen, J?/au
L12
          414 SAVOLAINEN, J?/AU
=> s l11 and l12
            1 L11 AND L12
L13
=> d l13 bib ab
L13 ANSWER 1 OF 1 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
AN
    1999-634077 [54]
                       WPIDS
DNC C1999-185287
    Modification and isolation of protein,
    especially whey or soy proteins, for augmenting the
    processing value of whey.
DC
IN
    SAVOLAINEN, J
PΑ
     (SAVO-I) SAVOLAINEN J
CYC
    21
PΙ
    WO 9955170
                    A1 19991104 (199954) * EN
        RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
        W: AU NZ US
    FI 9800945 A 19991030 (200005)
                    A 19991116 (200015)
    AU 9937123
    EP 1076489 A1 20010221 (200111)
                                           EN
        R: AT DE DK ES FR GB IE IT NL SE
    FI 107116
                    B1 20010615 (200145)
    AU 749685
                    B 20020704 (200255)
                    A 20031128 (200382)
    NZ 507646
ADT WO 9955170 A1 WO 1999-FI347 19990428; FI 9800945 A FI 1998-945 19980429;
    AU 9937123 A AU 1999-37123 19990428; EP 1076489 A1 EP 1999-919299
    19990428, WO 1999-FI347 19990428; FI 107116 B1 FI 1998-945 19980429; AU
    749685 B AU 1999-37123 19990428; NZ 507646 A NZ 1999-507646 19990428, WO
    1999-FI347 19990428
FDT AU 9937123 A Based on WO 9955170; EP 1076489 A1 Based on WO 9955170; FI
    107116 B1 Previous Publ. FI 9800945; AU 749685 B Previous Publ. AU
    9937123, Based on WO 9955170; NZ 507646 A Based on WO 9955170
PRAI FI 1998-945
                          19980429
         9955170 A UPAB: 19991221
AB
    WO
    NOVELTY - A protein such as whey or soy (or
    their concentrate) is reacted with a reagent which forms
    sulfite ions to sulfonate the protein
    without an oxidizing agent. The
    sulfonated protein is precipitated at an acid
    pH. The sulfonated protein or the precipitated
    and/or soluble sulfonated protein is recovered and
    optionally processed.
         USE - Processing (whey) proteins for human consumption and
    functional food products.
         ADVANTAGE - Oxidation in order to change the conformation of the
    protein molecules is unnecessary as the sulfitolysis creates
    sufficient cleavage of disulfide bonds. Omission of oxidation simplifies
    and speeds up the process thereby rendering it more economically
    profitable. The processing value of whey is augmented and the
    profitability of cheese production is increased.
    Dwg.0/0
```

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7 L14 AND L10
L15
=> d l15 1-7 bib ab
L15 ANSWER 1 OF 7 USPATFULL on STN
       2004:127423 USPATFULL
ΑN
ΤI
       Pharmaceutical compositions and treatment methods - 4
IN
       Ahlem, Clarence Nathaniel, San Diego, CA, UNITED STATES
       Frincke, James Martin, San Diego, CA, UNITED STATES
       dos Anjos de Carvalho, Luis Daniel, Paio Pires, PORTUGAL
       Heggie, William, Palmela, PORTUGAL
       Prendergast, Patrick T., County Kildare, IRELAND
       Reading, Christopher L., San Diego, CA, UNITED STATES
       Thadikonda, Krupakar Paul, Gaithersburg, MD, UNITED STATES
       Vernon, Russell Neil, Oak Hills, CA, UNITED STATES
       US 2004097406
PΙ
                          Α1
                                20040520
       US 2003-607035
ΑI
                          A1
                                20030625 (10)
       Division of Ser. No. US 2000-535675, filed on 23 Mar 2000, GRANTED, Pat.
RLT
       No. US 6667299 Continuation-in-part of Ser. No. US 1999-414905, filed on
       8 Oct 1999, ABANDONED
PRAI
       US 2000-190140P
                           20000316 (60)
       US 1999-164048P
                           19991108 (60)
       US 1999-140028P
                            19990616 (60)
       US 1999-126056P
                           19991019 (60)
DT
       Utility
FS
       APPLICATION
LREP
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
       DIEGO, CA, 92121
       Number of Claims: 21
CLMN
ECL
       Exemplary Claim: 1
DRWN
       6 Drawing Page(s)
LN.CNT 9339
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       The invention provides compositions comprising formula 1 steroids, e.g.,
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one hemihydrate
       and one or more excipients, typically wherein the composition comprises
       less than about 3% water. The compositions are useful to make
       improved pharmaceutical formulations. The invention also
       provides methods of intermittent dosing of steroid compounds such as
       analogs of 16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen (viral)
       replication, ameliorate symptoms associated with immune dysregulation
       and to modulate immune responses in a subject using certain steroids and
       steroid analogs. The invention also provides methods to make
       and use these immunomodulatory compositions and formulations.
L15 ANSWER 2 OF 7 USPATFULL on STN
       2004:57966 USPATFULL
AN
ΤI
       Pharmaceutical compositions and treatment methods
       Ahlem, Clarence N., San Diego, CA, UNITED STATES
IN
       Heggie, William, Cabanas, PORTUGAL
       Carvalho, Luis D., Paio Pires, PORTUGAL
PI
       US 2004043973
                                20040304
                          Α1
AΙ
       US 2002-319356
                          A1
                                20021213 (10)
       Continuation of Ser. No. US 2000-535675, filed on 23 Mar 2000, PENDING
RLI
PRAI
       US 2000-190140P
                           20000316 (60)
DT
       Utility
FS
       APPLICATION
LREP
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
       DIEGO, CA, 92121
```

=> s 114 and 110

CLMN

ECL

Number of Claims: 53

Exemplary Claim: 1

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DRWN
       6 Drawing Page(s)
LN.CNT 9007
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides compositions comprising formula 1 steroids, e.g.,
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one hemihydrate
       and one or more excipients, typically wherein the composition comprises
       less than about 3% water. The compositions are useful to make
       improved pharmaceutical formulations. The invention also
       provides methods of intermittent dosing of steroid compounds such as
       analogs of 16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen (viral)
       replication, ameliorate symptoms associated with immune dysregulation
       and to modulate immune responses in a subject using certain steroids and
       steroid analogs. The invention also provides methods to make
       and use these immunomodulatory compositions and formulations.
L15 ANSWER 3 OF 7 USPATFULL on STN
AN
       2003:332378 USPATFULL
       Pharmaceutical compositions and treatment methods
ΤI
       Ahlem, Clarence Nathaniel, San Diego, CA, United States
IN
       de Carvalho, Luis Daniel dos Anjos, Paio Pires, PORTUGAL
       Heggie, William, Palmela, PORTUGAL
PΑ
       Hollis-Eden Pharmaceuticals, Inc., San Diego, CA, United States (U.S.
       corporation)
PΙ
       US 6667299
                                20031223
ΑI
       US 2000-535675
                                20000323 (9)
PRAI
       US 2000-190140P
                           20000316 (60)
       Utility
DT
FS
       GRANTED
       Primary Examiner: Badio, Barbara P.
EXNAM
LREP
       Muenchau, Daryl D.
CLMN
       Number of Claims: 39
ECL
       Exemplary Claim: 1
DRWN
       6 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 8994
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       The invention provides compositions comprising, 16\alpha-bromo-3\beta-
       hydroxy-5\alpha-androstan-17-one hemihydrate and one or more
       excipients, typically wherein the composition comprises less than about
       3% water. The compositions are useful to make improved
       pharmaceutical formulations. The invention also provides
       methods of intermittent dosing of steroid compounds such as analogs of
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen (viral)
       replication, ameliorate symptoms associated with immune dysregulation
       and to modulate immune responses in a subject using certain steroids and
       steroid analogs. The invention also provides methods to make
       and use these immunomodulatory compositions and formulations.
L15 ANSWER 4 OF 7 USPATFULL on STN
       2003:319282 USPATFULL
AN
ΤI
       Administration of acetylcholinesterase inhibitors to the cerebral spinal
       Quay, Steven C., Edmonds, WA, UNITED STATES
IN
PΙ
       US 2003225031
                          A1
                                20031204
ΑI
       US 2003-439108
                          A1
                                20030515 (10)
       US 2002-382122P
PRAI
                           20020521 (60)
DT
       Utility
FS
       APPLICATION
LREP
       Nastech Pharmaceutical Company Inc., 3450 Monte Villa Parkway, Bothell,
       WA, 98021-8906
CLMN
       Number of Claims: 62
ECL
       Exemplary Claim: 1
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Methods and compositions are disclosed that provide acetylcholinesterase
       inhibitors for the prevention and treatment of diseases and disorders of
       the central nervous system, including dementia such as Alzheimer's
       disease, to the central nervous system via intranasal delivery. The
       methods and compositions of the present invention provide therapeutic
       concentrations of the acetylcholinesterase inhibitor in the
       cerebrospinal fluid of a mammal without the attendant disadvantages,
       risks and side effects of oral or injection delivery.
    ANSWER 5 OF 7 USPATFULL on STN
L15
AN
       2003:120747 USPATFULL
       Blood cell deficiency treatment method
TT
IN
       Ahlem, Clarence N., San Diego, CA, UNITED STATES
       Reading, Christopher, San Diego, CA, UNITED STATES
       Frincke, James, San Diego, CA, UNITED STATES
       Stickney, Dwight, Granite Bay, CA, UNITED STATES
       Lardy, Henry A., Madison, WI, UNITED STATES Marwah, Padma, Middleton, WI, UNITED STATES
       Marwah, Ashok, Middleton, WI, UNITED STATES
       Prendergast, Patrick T., Straffan, IRELAND
ΡI
       US 2003083231
                          A1
                                20030501
                                20020301 (10)
ΑI
       US 2002-87929
                          A1
       Continuation-in-part of Ser. No. US 2000-675470, filed on 28 Sep 2000,
RLI
       PENDING Continuation-in-part of Ser. No. US 2001-820483, filed on 29 Mar
       2001, PENDING Continuation-in-part of Ser. No. US 2000-535675, filed on
       23 Mar 2000, PENDING Continuation-in-part of Ser. No. US 1999-449004,
       filed on 24 Nov 1999, ABANDONED Continuation-in-part of Ser. No. US
       1999-449184, filed on 24 Nov 1999, ABANDONED Continuation-in-part of
       Ser. No. US 1999-449042, filed on 24 Nov 1999, ABANDONED
       Continuation-in-part of Ser. No. US 1999-461026, filed on 15 Dec 1999,
       ABANDONED Continuation-in-part of Ser. No. US 2000-586673, filed on 1
       Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 2000-586672,
       filed on 1 Jun 2000, ABANDONED Continuation-in-part of Ser. No. US
       1999-414905, filed on 8 Oct 1999, ABANDONED
PRAI
       US 1999-161453P
                            19991025 (60)
       US 2001-272624P
                            20010301 (60)
       US 2001-323016P
                            20010911 (60)
       US 2001-340045P
                            20011130 (60)
       US 2001-328738P
                            20011011 (60)
       US 2001-338015P
                            20011108 (60)
       US 2001-343523P
                            20011220 (60)
       US 1999-126056P
                            19991019 (60)
       US 1999-124087P
                            19990311 (60)
       US 1998-109923P
                            19981124 (60)
       US 1998-109924P
                            19981124 (60)
       US 1998-110127P
                            19981127 (60)
       US 1998-112206P
                            19981215 (60)
                            19990727 (60)
       US 1999-145823P
       US 1999-137745P
                            19990603 (60)
       US 1999-140028P
                            19990616 (60)
DT
       Utility
FS
       APPLICATION
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
LREP
       DIEGO, CA, 92121
       Number of Claims: 45
CLMN
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 19428
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention relates to the use of compounds to treat a number of
AB
       conditions, such as thrombocytopenia, neutropenia or the delayed effects
       of radiation therapy. Compounds that can be used in the invention
```

1 Drawing Page(s)

DRWN

LN.CNT 2144

include methyl-2,3,4-trihydroxy-1-O-(7,17-dioxoandrost-5-ene-3 β -yl)- β -D-glucopyranosiduronate, 16 α ,3 α -dihydroxy-5 α -androstan-17-one or 3,7,16,17-tetrahydroxyandrost-5-ene, 3,7,16,17-tetrahydroxyandrost-4-ene,3,7,16,17-tetrahydroxyandrost-1-ene or 3,7,16,17-tetrahydroxyandrostane that can be used in the treatment method.

L15 ANSWER 6 OF 7 USPATFULL on STN

```
2003:99213 USPATFULL
ΑN
TI
       High capacity methods for separation, purification,
       concentration, immobilization and synthesis of compounds and
       applications based thereupon
IN
       Lee, William, Cambridge, MA, UNITED STATES
       Saito, Kyoichi, Tokyo, JAPAN
PI
       US 2003068317
                           A1
                                20030410
ΑI
       US 2002-126297
                           A1
                                20020419 (10)
PRAI
       US 2001-285146P
                            20010420 (60)
       US 2001-339951P
                            20011210 (60)
       US 2001-339949P
                            20011210 (60)
       US 2002-347547P
                            20020111 (60)
DT
       Utility
FS
       APPLICATION
LREP
       MINTZ, LEVIN, COHN, FERRIS,, GLOVSKY AND POPEO, P.C., One Financial
       Center, Boston, MA, 02111
CLMN
       Number of Claims: 35
ECL
       Exemplary Claim: 1
DRWN
       34 Drawing Page(s)
LN.CNT 2906
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB
       Compositions are provided herein comprising a base material having
       engrafted polymer brushes. The polymer brushes further comprise one or
       more functional groups immobilized along the surface of the brushes in a
       plurality of layers, which confer functional properties to the base
       material compositions. Methods of using these compositions include
       deoxygenation of a sample solution, hydrolysis of denaturing agents in a
       sample solution, resolution of racemic mixtures in a sample solution,
       and purification, and concentration of target compounds.
L15 ANSWER 7 OF 7 USPATFULL on STN
       2003:86817 USPATFULL
AN
TI
       Immune modulation method using steroid compounds
       Ahlem, Clarence N., San Diego, CA, UNITED STATES
TN
       Frincke, James M., San Diego, CA, UNITED STATES
       dos Anjos de Carvalho, Luis Daniel, Paio Pires, PORTUGAL
       Heggie, William, Palmela, PORTUGAL
       Prendergast, Patrick T., County Kildare, IRELAND Reading, Christopher L., San Diego, CA, UNITED STATES
       Thadikonda, Krupakar Paul, Gaithersburg, MD, UNITED STATES
       Vernon, Russell N., Oak Hills, CA, UNITED STATES
PI
       US 2003060425
                          Α1
                                20030327
ΑI
       US 2001-820483
                          Α1
                                20010329 (9)
       Continuation-in-part of Ser. No. US 1999-449184, filed on 24 Nov 1999,
RLI
       ABANDONED Continuation-in-part of Ser. No. US 1999-414905, filed on 8
       Oct 1999, ABANDONED Continuation-in-part of Ser. No. US 1999-449004,
       filed on 24 Nov 1999, ABANDONED Continuation-in-part of Ser. No. US
       2000-535675, filed on 23 Mar 2000, PENDING Continuation-in-part of Ser.
       No. US 1999-449042, filed on 24 Nov 1999, ABANDONED Continuation-in-part
       of Ser. No. US 2000-675470, filed on 28 Sep 2000, PENDING
       Continuation-in-part of Ser. No. US 2000-586673, filed on 1 Jun 2000,
       ABANDONED Continuation-in-part of Ser. No. US 2000-586672, filed on 1
       Jun 2000, ABANDONED Continuation-in-part of Ser. No. US 1999-461026,
       filed on 15 Dec 1999, ABANDONED
PRAI
       US 1998-109924P
                           19981124 (60)
       US 1999-140028P
                           19990616 (60)
       US 1998-109923P
                           19981124 (60)
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US 1999-126056P
                            19991019 (60)
       US 1999-124087P
                            19990311 (60)
       US 1998-110127P
                            19981127 (60)
       US 1999-161453P
                            19991025 (60)
       US 1999-145823P
                            19990727 (60)
       US 1999-137745P
                            19990603 (60)
       US 1998-112206P
                            19981215 (60)
       US 2000-257071P
                            20001220 (60)
DT
       Utility
FS
       APPLICATION
LREP
       HOLLIS-EDEN PHARMACEUTICALS, INC., 4435 EASTGATE MALL, SUITE 400, SAN
       DIEGO, CA, 92121
       Number of Claims: 54
CLMN
ECL
       Exemplary Claim: 1
       6 Drawing Page(s)
DRWN
LN.CNT 14708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention provides compositions comprising formula 1 steroids, e.g.,
       16\alpha-bromo-3 \beta-hydroxy-5\alpha-androstan-17-one hemihydrate
       and one or more excipients, including compositions that comprise a
       liquid formulation comprising less than about 3% v/v water.
       The compositions are useful to make improved pharmaceutical
       formulations. The invention also provides methods of
       intermittent dosing of steroid compounds such as analogs of
       16\alpha-bromo-3\beta-hydroxy-5\alpha-androstan-17-one and
       compositions useful in such dosing regimens. The invention further
       provides compositions and methods to inhibit pathogen replication,
       ameliorate symptoms associated with immune dysregulation and to modulate
       immune responses in a subject using the compounds. The invention also
       provides methods to make and use these immunomodulatory
       compositions and formulations.
=> d his
     (FILE 'HOME' ENTERED AT 11:49:47 ON 26 MAY 2004)
     FILE 'MEDLINE, CAPLUS, BIOSIS, BIOTECHDS, EMBASE, USPATFULL, WPIDS'
     ENTERED AT 11:50:33 ON 26 MAY 2004
L1
         141102 S (SULFITE# OR SULPHITE#)
L2
          51851 S L1 AND (SODIUM SULFITE OR SODIUM SULPHITE OR NA2SO3 OR SULFUR
L3
            421 S L2 AND (PROTEIN(L)SOY OR WHEY)
L4
            408 S L3 AND (PREPAR? OR MODIF? OR MAK? OR ISOLAT? OR FORMULAT? OR
L5
            368 S L4 AND (PPT# OR PRECIP? OR AGGREGAT? OR CONCENTRAT? OR CENTR
            142 S L5 AND (SULFONAT? (W) PROTEIN OR PROTEIN (L) SULFON?)
L6
L7
             21 S L6 AND (ACID? (W) PH)
             12 S L6 AND (ENZYMAT? (W) HYDROLYSIS)
L8
L9
              4 S L7 AND L8
L10
              7 S L8 AND (PEPSIN OR TRYPSIN)
             28 S L6 AND (WITHOUT(L)OXIDIZING AGENT OR NO OXIDIZ? (W) AGENT#)
L11
L12
            414 S SAVOLAINEN, J?/AU
L13
             1 S L11 AND L12
L14
             29 S L7 OR L8 OR L11 AND (L12)
L15
              7 S L14 AND L10
=> s l11 or l14 and (l12)
            30 L11 OR L14 AND (L12)
L16
=> s 113 and 116
L17
             1 L13 AND L16
=> s 112 and 117
L18
             1 L12 AND L17
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=> s 118 and 18

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L19
             0 L18 AND L8
=> s 118 and (enzymat?(w)hydrolysis)
             0 L18 AND (ENZYMAT? (W) HYDROLYSIS)
L20
=> s 116 and (sulfitlysis)
             0 L16 AND (SULFITLYSIS)
L21
=> s l16 and (sulfitolysis)
L22
             6 L16 AND (SULFITOLYSIS)
=> d 122 1-6 bib ab
L22 ANSWER 1 OF 6 USPATFULL on STN
       1998:138493 USPATFULL
ΑN
TI
       Method for isolating whey proteins
       Savolainen, Jouko, Kuurinniityntie 26, FIN-02700 Kauniainen,
IN
       Finland
ΡI
       US 5834042
                               19981110
       WO 9522907 19950831
AΙ
       US 1996-619666
                               19961114 (8)
       WO 1995-FI91
                               19950222
                                         PCT 371 date
                               19961114
                               19961114 PCT 102(e) date
PRAI
       FI 1994-846
                           19940223
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Tsang, Cecilia J.; Assistant Examiner: Lukton, David
LREP
       Loeb & Loeb LLP
CLMN
       Number of Claims: 38
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 771
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       The invention relates to a method for isolating proteins from
       whey, wherein the whey or a concentrate
       thereof, a reagent which forms sulfite ions, and an oxidative
       compound are contacted in order to sulfitolyze and oxidize the
       whey protein, the sulfitolyzed and oxidized whey
       protein is precipitated out from the whey or
       concentrate thereof at an acid pH, and the
       precipitated sulfitolyzed and oxidized whey protein is
       recovered from the product mixture, and an after-treatment is
       possibly performed on it. When a food-grade oxidative compound is used
       as the oxidant and a temperature within the range 25°-55°
       C. is used, the oxidative compound can be caused to react directly with
       the sulfitolyzed whey protein, and thus the disadvantages
       associated with the use of a catalyst are eliminated.
L22 ANSWER 2 OF 6 USPATFULL on STN
       95:20436 USPATFULL
AN
TI
       Cleaning composition containing a type II endoglycosidase
       Carpenter, Richard S., Cincinnati, OH, United States
TN
       Goldstein, Irwin J., Ann Arbor, MI, United States
       Lad, Pushkaraj J., San Mateo, CA, United States
       Wolff, Ann M., Cincinnati, OH, United States
PA
       The Procter & Gamble Company, Cincinnati, OH, United States (U.S.
       corporation)
       Genencor International, Inc., Rochester, NY, United States (U.S.
       corporation)
PI
       US 5395541
                               19950307
ΑI
       US 1993-98083
                               19930726 (8)
       Division of Ser. No. US 1989-428361, filed on 27 Oct 1989, now patented,
RLI
       Pat. No. US 5238843
DΤ
       Utility
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FS Granted Primary Examiner: Naff, David M.; Assistant Examiner: Meller, Mike EXNAM Horn, Margaret A. LREP Number of Claims: 20 CLMN ECL Exemplary Claim: 1 35 Drawing Figure(s); 28 Drawing Page(s) DRWN LN.CNT 2534 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A cleaning composition is disclosed. The composition contains a first enzyme where the enzyme can be Endo-D, Endo-H, Endo-L, Endo-C, Endo-CII, Endo-F-Gal type, Endo-F and PNGaseF and a second enzyme where the enzyme can be a protease, lipase, nuclease, glycosidase, an enzyme different from the first enzyme, and any combination of these. The composition also contains a detergent surfactant and a builder. The composition can be used in a method for cleaning a surface on which is bound a glycoside-containing substance. The substance can be blood or components thereof, fecal matter or components thereof or microorganisms. The surface can be fabric, biological tissue, tooth enamel, contact lens, glass, ceramic, metal, metal alloy, plastic, plant, fruit and vegetable. L22 ANSWER 3 OF 6 USPATFULL on STN 94:90961 USPATFULL ΑN TI Antimicrobial composition containing Type II endoglycosidase and antimicrobial agent IN Carpenter, Richard S., Cincinnati, OH, United States Lad, Pushkaraj J., San Mateo, CA, United States Wolff, Ann M., Cincinnati, OH, United States PΑ Genencor International, Inc., So. San Francisco, CA, United States (U.S. corporation) The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation) PΙ US 5356803 19941018 US 1992-869356 ΑI 19920330 (7) DCD 20100824 RLI Continuation of Ser. No. US 1989-428362, filed on 27 Oct 1989, now abandoned DTUtility FS Granted Primary Examiner: Naff, David M.; Assistant Examiner: Meller, Michael V. EXNAM Horn, Margaret A. LREP CLMN Number of Claims: 15 ECL Exemplary Claim: 1 DRWN 33 Drawing Figure(s); 28 Drawing Page(s) LN.CNT 2433 CAS INDEXING IS AVAILABLE FOR THIS PATENT. AR An antimicrobial composition consisting essentially of from about 1 ppm to about 1200 ppm of a Type II endoglycosidase and from about 0.5 ppm to about 1200 ppm of an antimicrobial agent is disclosed. The preferred Type II endoglycosidases to be used in the invention are Endo-D, Endo-H, Endo-F and PNGaseF. The preferred antimicrobial agents are bactericides. fungicides and algicides. The composition can be used in the form of personal care or household cleaning products such as liquid soap, hard surface cleaner, laundry detergent, anti-acne medication, deodorant, shampoo, face cream, mouthwash, dentifrice and denture cleaner. L22 ANSWER 4 OF 6 USPATFULL on STN AN93:91558 USPATFULL

M 33:31330 OSPAIRULL

TI Method of removing microorganisms from surfaces with Type II endoglycosidase

IN Carpenter, Richard S., Cincinnati, OH, United States Lad, Pushkaraj J., San Mateo, CA, United States Wolff, Ann M., Cincinnati, OH, United States

PA Genencor International, Inc., So. San Francisco, CA, United States (U.S. corporation)

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P&G, Cincinnati, OH, United States (U.S. corporation)
       US 5258304
PΤ
                               19931102
       US 1989-428248
AΙ
                               19891027 (7)
DCD
       20100824
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Naff, David M.
       Horn, Margaret A.
LREP
       Number of Claims: 9
CLMN
ECL
       Exemplary Claim: 1
DRWN
       33 Drawing Figure(s); 28 Drawing Page(s)
LN.CNT 2410
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Microorganisms are removed from the surface of materials such as fabrics
       or contact lenses by treatment with a Type II endoglycosidase. The Type
       II endoglycosidase may be used alone or in combination with other
       enzymes, detergents, surfactants and/or disulfide cleaving reagents to
       facilitate removal of the microorganisms. The Type II endoglycosidase
       may be an Endo-\beta-N-acetylglucosaminidase, Endo-\alpha-N-
       acetylgalactosaminidase or Endo-\beta-N-galactosidase.
L22 ANSWER 5 OF 6 USPATFULL on STN
       93:69772 USPATFULL
AN
ΤI
       Method for cleaning a surface on which is bound a glycoside-containing
IN
       Carpenter, Richard S., Cincinnati, OH, United States
       Goldstein, Irwin J., Ann Arbor, MI, United States
       Lad, Pushkaraj J., San Mateo, CA, United States
       Wolff, Ann M., Cincinnati, OH, United States
PA
       Genencor International, Inc., So. San Francisco, CA, United States (U.S.
       corporation)
       The Procter & Gamble Company, Cincinnati, OH, United States (U.S.
       corporation)
ΡI
       US 5238843
                               19930824
       US 1989-428361
ΑI
                               19891027 (7)
DT
       Utility
FS
       Granted
       Primary Examiner: Naff, David M.; Assistant Examiner: Meller, Michael V.
EXNAM
LREP
       Horn, Margaret A.
       Number of Claims: 21
CLMN
ECL
       Exemplary Claim: 1
DRWN
       33 Drawing Figure(s); 28 Drawing Page(s)
LN.CNT 2485
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AR
       A method for cleaning a surface on which is bound a glycoside-containing
       substance. The substance can be blood or components thereof, fecal
       matter or components thereof or microorganisms. The surface can be
       fabric, biological tissue, tooth enamel, contact lens, glass, ceramic,
       metal, metal alloy, plastic, plant, fruit and vegetable. A Type II
       endoglycosidase is used to carry out the method.
L22 ANSWER 6 OF 6 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
     1999-634077 [54]
ΑN
                        WPIDS
DNC C1999-185287
TΤ
     Modification and isolation of protein,
     especially whey or soy proteins, for augmenting the
     processing value of whey.
DC
     D13
IN
     SAVOLAINEN, J
PΑ
     (SAVO-I) SAVOLAINEN J
CYC 21
    WO 9955170
                     Al 19991104 (199954)* EN
        RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
         W: AU NZ US
     FI 9800945
                   A 19991030 (200005)
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AU 9937123 A 19991116 (200015) EP 1076489 A1 20010221 (200111) EN R: AT DE DK ES FR GB IE IT NL SE FI 107116 B1 20010615 (200145) AU 749685 B 20020704 (200255) NZ 507646 A 20031128 (200382) ADT WO 9955170 A1 WO 1999-FI347 19990428; FI 9800945 A FI 1998-945 19980429; AU 9937123 A AU 1999-37123 19990428; EP 1076489 A1 EP 1999-919299 19990428, WO 1999-FI347 19990428; FI 107116 B1 FI 1998-945 19980429; AU 749685 B AU 1999-37123 19990428; NZ 507646 A NZ 1999-507646 19990428, WO 1999-FI347 19990428 FDT. AU 9937123 A Based on WO 9955170; EP 1076489 A1 Based on WO 9955170; FI 107116 B1 Previous Publ. FI 9800945; AU 749685 B Previous Publ. AU 9937123, Based on WO 9955170; NZ 507646 A Based on WO 9955170 PRAI FI 1998-945 19980429 WO 9955170 A UPAB: 19991221 NOVELTY - A protein such as whey or soy (or their concentrate) is reacted with a reagent which forms sulfite ions to sulfonate the protein without an oxidizing agent. The sulfonated protein is precipitated at an acid pH. The sulfonated protein or the precipitated and/or soluble sulfonated protein is recovered and optionally processed. USE - Processing (whey) proteins for human consumption and functional food products. ADVANTAGE - Oxidation in order to change the conformation of the protein molecules is unnecessary as the sulfitolysis creates sufficient cleavage of disulfide bonds. Omission of oxidation simplifies and speeds up the process thereby rendering it more economically profitable. The processing value of whey is augmented and the profitability of cheese production is increased. Dwg.0/0 ---Logging off of STN---Executing the logoff script...

=> LOG Y

STN INTERNATIONAL LOGOFF AT 12:21:43 ON 26 MAY 2004